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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,543	02/06/2004	Arnold Monitzer	2003P16965 US01	6488

7590 09/12/2006
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EXAMINER

BONURA, TIMOTHY M

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/773,543	Applicant(s) MONITZER, ARNOLD	
	Examiner Tim Bonura	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/25/05 & 2/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

- **Claims 1-5, and 7-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Alexander, et al, U.S. Patent Number 6,189,111.**

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, and 7-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Alexander, et al, U.S. Patent Number 6,189,111.
3. Regarding claim 1:
 - a. Regarding the limitation of "networked processing devices, for managing operational failure occurrences in devices of said group," Alexander discloses a system with
 - b. Regarding the limitation of "an interface processor for maintaining transition information identifying a second processing device for taking over execution of tasks of a first processing device in response to an operational failure of said first processing device and for updating said transition information in response to a change in transition information occurring in another processing device of said group," Alexander discloses a system with a CLMS (cluster membership service). The CLMS sends messages to nodes and runs a timeout timer waiting for responses. If no response is received the node is deemed to have failed and a harvest of the nodes memory is commenced to retrieve the data and send it to a properly functioning node. (Lines 25-31 and 34-42 of Column 3 and Lines 35-40 of Column 5).

- c. Regarding the limitation of "an operation detector for detecting an operational failure of said first processing device," Alexander discloses a system with a designated node for controlling the cluster processing system as the CLMS. (Lines 31-35 of Column 3).
 - d. Regarding the limitation of "a failure controller for initiating execution, by said second processing device, of tasks designed to be performed by said first processing device in response to detection of an operational failure of said first processing device," Alexander discloses a system wherein a failed nodes memory is used to reconstruct the failed function on a non-failed node for continued processing. (Lines 66-67 of Column 2 and Line 1 of Column 3).
4. Regarding claim 2, Alexander discloses a system with memory objects on each node that track data structures for critical information for the cluster system such as queues, processes, memory mappings, cluster file tokens, and devices. (Lines 1-6 of Column 3).
5. Regarding claim 3, Alexander discloses a system where in CLMS has a pre-selection list that can provide the redundancy list for failed nodes in the system. The list is built off of the N+1 architecture, which can be adjusted as the cluster size changes. (Lines 19-23 of Column 6, also see incorporated '091 patent).
6. Regarding claim 4, Alexander disclose a system with a Cluster Management Component that will update the view of the cluster system accordingly after a failed "I am alive" message not being received by the CLMS. (Lines 40-44 and 59-61 of Column 8).
7. Regarding claim 5, Alexander disclose a system with a Cluster Management Component that will update the view of the cluster system accordingly after a failed "I am alive" message not being received by the CLMS. (Lines 40-44 and 59-61 of Column 8).

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8. Regarding claim 7, Alexander disclose a system with a Cluster Management Component that will update the view of the cluster system accordingly after a failed "I am alive" message not being received by the CLMS. (Lines 40-44 and 59-61 of Column 8).

9. Regarding claim 8, Alexander disclose a system with a Cluster Management Component that will update the view of the cluster system accordingly after a failed "I am alive" message not being received by the CLMS. (Lines 40-44 and 59-61 of Column 8).

10. Regarding claim 9, Alexander discloses a system with a CLMS that can broadcast "I am alive" messages indicating status of nodes. (Lines 29-34 of Column 8).

11. Regarding claim 10, Alexander disclose a cluster computer system recovery that can work for both software and hardware failure. (Lines 38-41 of Column 6).

12. Regarding claim 11, Alexander discloses a computing system with multiple processing elements, which comprise one distributed operation system. (Lines 9-16 of Column 1).

13. Regarding claim 12, Alexander discloses a computing system with nodes with similar architecture from processing data. (Lines 5-11 of Column 5).

14. Regarding claim 13, Alexander discloses a computing system with nodes with similar architecture from processing data. (Lines 5-11 of Column 5).

15. Regarding claim 14:

e. Regarding the limitation of "networked processing devices, for managing operational failure occurrences in devices of said group," Alexander discloses a system with

f. Regarding the limitation of "an individual processing device including, a repository including transition information identifying a second processing device for taking over execution of tasks designated to be performed of a first processing device in response to an operational failure of said first processing device; an interface processor

for maintaining and updating said transition information in response to a change in transition information occurring in another processing device of said group," Alexander discloses a system with a CLMS (cluster membership service). The CLMS sends messages to nodes and runs a timeout timer waiting for responses. If no response is received the node is deemed to have failed and a harvest of the nodes memory is commenced to retrieve the data and send it to a properly functioning node. (Lines 25-31 and 34-42 of Column 3 and Lines 35-40 of Column 5).

g. Regarding the limitation of "an operation detector for detecting an operational failure of said first processing device," Alexander discloses a system with a designated node for controlling the cluster processing system as the CLMS. (Lines 31-35 of Column 3).

h. Regarding the limitation of "a failure controller for initiating execution, by said second processing device, of tasks designed to be performed by said first processing device in response to detection of an operational failure of said first processing device," Alexander discloses a system wherein a failed nodes memory is used to reconstruct the failed function on a non-failed node for continued processing. (Lines 66-67 of Column 2 and Line 1 of Column 3).

16. Regarding claim 15, Alexander discloses a system with memory objects on each node that track data structures for critical information for the cluster system such as queues, processes, memory mappings, cluster file tokens, and devices. (Lines 1-6 of Column 3).

17. Regarding claim 16

i. Regarding the limitation of "networked processing devices, for managing operational failure occurrences in devices of said group," Alexander discloses a system with

j. Regarding the limitation of "an individual processing device including, a repository including transition information identifying a second non-operational processing device for taking over execution of tasks designated to be performed of a first processing device in response to an operational failure of said first processing device; an interface processor for maintaining and updating said transition information in response to at least one of, (a) detection of an operational failure of another processing device in said group and (b) detection of available memory of another processing device of said group being below a predetermined threshold," Alexander discloses a system with a CLMS (cluster membership service). The CLMS sends messages to nodes and runs a timeout timer waiting for responses. If no response is received the node is deemed to have failed and a harvest of the nodes memory is commenced to retrieve the data and send it to a properly functioning node. (Lines 25-31 and 34-42 of Column 3 and Lines 35-40 of Column 5).

k. Regarding the limitation of "an operation detector for detecting an operational failure of said first processing device," Alexander discloses a system with a designated node for controlling the cluster processing system as the CLMS. (Lines 31-35 of Column 3).

l. Regarding the limitation of "a failure controller for initiating execution, by said second processing device, of tasks designated to be performed by said first processing device in response to detection of an operational failure of said first processing device," Alexander discloses a system wherein a failed nodes memory is used to reconstruct the failed function on a non-failed node for continued processing. (Lines 66-67 of Column 2 and Line 1 of Column 3).

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18. Regarding claim 17, Alexander discloses a system with memory objects on each node that track data structures for critical information for the cluster system such as queues, processes, memory mappings, cluster file tokens, and devices. (Lines 1-6 of Column 3).

Alexander discloses a system where in CLMS has a pre-selection list that can provide the redundancy list for failed nodes in the system. The list is built off of the N+1 architecture, which can be adjusted as the cluster size changes. (Lines 19-23 of Column 6, also see incorporated '091 patent). Alexander disclose a system with a Cluster Management Component that will update the view of the cluster system accordingly after a failed "I am alive" message not being received by the CLMS. (Lines 40-44 and 59-61 of Column 8).

19. Regarding claim 18:

m. Regarding the limitation of "networked processing devices, for managing operational failure occurrences in devices of said group," Alexander discloses a system with

n. Regarding the limitation of "maintaining transition information identifying a second processing device for taking over execution of tasks of a first processing device in response to an operational failure of said first processing device and for updating said transition information in response to a change in transition information occurring in another processing device of said group," Alexander discloses a system with a CLMS (cluster membership service). The CLMS sends messages to nodes and runs a timeout timer waiting for responses. If no response is received the node is deemed to have failed and a harvest of the nodes memory is commenced to retrieve the data and send it to a properly functioning node. (Lines 25-31 and 34-42 of Column 3 and Lines 35-40 of Column 5).

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o. Regarding the limitation of "detecting an operational failure of said first processing device," Alexander discloses a system with a designated node for controlling the cluster processing system as the CLMS. (Lines 31-35 of Column 3).

p. Regarding the limitation of "initiating execution, by said second processing device, of tasks designed to be performed by said first processing device in response to detection of an operational failure of said first processing device," Alexander discloses a system wherein a failed nodes memory is used to reconstruct the failed function on a non-failed node for continued processing. (Lines 66-67 of Column 2 and Line 1 of Column 3).

20. Regarding claim 19:

q. Regarding the limitation of "networked processing devices, for managing operational failure occurrences in devices of said group," Alexander discloses a system with

r. Regarding the limitation of "storing transition information identifying a second processing device for taking over execution of tasks designated to be performed of a first processing device in response to an operational failure of said first processing device; maintaining and updating said transition information in response to a change in transition information occurring in another processing device of said group," Alexander discloses a system with a CLMS (cluster membership service). The CLMS sends messages to nodes and runs a timeout timer waiting for responses. If no response is received the node is deemed to have failed and a harvest of the nodes memory is commenced to retrieve the data and send it to a properly functioning node. (Lines 25-31 and 34-42 of Column 3 and Lines 35-40 of Column 5).

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s. Regarding the limitation of “detecting an operational failure of said first processing device,” Alexander discloses a system with a designated node for controlling the cluster processing system as the CLMS. (Lines 31-35 of Column 3).

t. Regarding the limitation of “initiating execution, by said second processing device, of tasks designed to be performed by said first processing device in response to detection of an operational failure of said first processing device,” Alexander discloses a system wherein a failed nodes memory is used to reconstruct the failed function on a non-failed node for continued processing. (Lines 66-67 of Column 2 and Line 1 of Column 3).

21. Regarding claim 20:

u. Regarding the limitation of “networked processing devices, for managing operational failure occurrences in devices of said group,” Alexander discloses a system with

v. Regarding the limitation of “maintaining transition information identifying a second non-operational processing device for taking over execution of tasks designated to be performed of a first processing device in response to an operational failure of said first processing device; updating said transition information in response to at least one of, (a) detection of an operational failure of another processing device in said group and (b) detection of available memory of another processing device of said group being below a predetermined threshold,” Alexander discloses a system with a CLMS (cluster membership service). The CLMS sends messages to nodes and runs a timeout timer waiting for responses. If no response is received the node is deemed to have failed and a harvest of the nodes memory is commenced to retrieve the data and send it to a

properly functioning node. (Lines 25-31 and 34-42 of Column 3 and Lines 35-40 of Column 5).

w. Regarding the limitation of "detecting an operational failure of said first processing device," Alexander discloses a system with a designated node for controlling the cluster processing system as the CLMS. (Lines 31-35 of Column 3).

x. Regarding the limitation of "initiating execution, by said second processing device, of tasks designed to be performed by said first processing device in response to detection of an operational failure of said first processing device," Alexander discloses a system wherein a failed nodes memory is used to reconstruct the failed function on a non-failed node for continued processing. (Lines 66-67 of Column 2 and Line 1 of Column 3).

Specification

22. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Allowable Subject Matter

23. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

24. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 6: the limitation of "said plurality of factors including at least one of, (a) detection of operational load of another processing device in said group exceeding a predetermined threshold, (b) detection of use of CPU (Central Processing Unit) resources of

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another processing device of said group exceeding a predetermined threshold and (c) detection of a number of I/O (input - output) commands, in a predetermined time period, of another processing device of said group exceeding a predetermined threshold" was not found in the prior art of record, singly or in combination with another reference.

Conclusion

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**.

- The examiner can normally be reached on **Mon-Fri: 8:30-5:00**.
- The examiner can be reached at: **571-272-3654**.

26. If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Scott Baderman**.

- The supervisor can be reached on **571-272-3644**.

27. The fax phone numbers for the organization where this application or proceeding is assigned are:

- **703-872-9306 for all patent related correspondence by FAX.**

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

29. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **571-272-2100**.

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30. Responses should be mailed to:


- **Commissioner of Patents and Trademarks**

P.O. Box 1450

Alexandria, VA 22313-1450

Tim Bonura
Examiner
Art Unit 2114

September 8, 2006

A handwritten signature in black ink, appearing to read "Tim Bonura", with a long horizontal line extending to the right.